

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 848
TO BE ANSWERED ON 21.11.2019

DEPLOYMENT OF RENEWABLE ENERGY

848. SHRI GAURAV GOGOI

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the programmes and methods utilised by the Government to aid and increase the deployment of renewable energy in the country;
- (b) the quantum of renewable power capacity that has been installed, State/UT-wise;
- (c) whether the Government proposes to achieve the renewable energy target of 175 GW by 2022; and
- (d) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE (I/C) FOR NEW & RENEWABLE ENERGY, POWER and MoS for SKILL DEVELOPMENT AND ENTREPRENEURSHIP

(SHRI R. K. SINGH)

- (a) The details of the programs being implemented in the country are given in the **Annexure-I**.

To increase the deployment of renewable energy in the country, the Government of India have put in place various policies/initiatives for promotion of renewable energy. These initiatives include incentives such as accelerated depreciations, waiver of Inter State Transmission System (ISTS) charges and losses, viability gap funding (VGF) and permitting Foreign Direct Investment up to 100 per cent under the automatic route. Renewable Energy Projects are awarded through transparent bidding process. Government have also issued standard bidding guidelines to enable the distribution licensees to procure power at competitive rates in cost effective manner.

- (b) A cumulative renewable energy capacity of 83.38 GW has been installed in the country as on 31/10/2019. The state-wise and source-wise detail of installed capacity is given in **Annexure-II**.

(c) & (d) The Government has set a target of installing 175 GW of renewable energy capacity by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from Biomass and 5 GW from Small Hydro. A total of 83.38 GW of renewable energy capacity has been installed in the country as on 31/10/2019 which includes 31.69 GW from solar, 37.09 GW from wind, 9.95 GW from Biomass and 4.65 GW from Small Hydro.

Annexure-I referred to in reply to part (a) of Lok Sabha Un-starred Question No. 848 for 21/11/2019 regarding 'Deployment of Renewable Energy'

Details of the Renewable Energy Schemes / Programmes

1. **Grid Interactive Power:**

- **Wind Power:** Grid Interactive Wind Power projects.
- **Bio-power:** Biomass power/ Cogeneration and waste to energy programme.
- **Small Hydro Power:** Small hydro power plants up to 25 MW capacity.
- **Solar Power:** Grid-interactive –Solar power generation plants, Solar Roof Top programme.
- **Green Energy Corridors:** transmission Infrastructure for evacuation of Power from Renewable Energy Sources.

2. **Off-Grid/ Distributed and Decentralized Renewable Power:**

- **Solar Power** -To promote the solar devices such as Solar Lighting Systems, Solar Power Packs and Concentrated Solar Technology systems, **PM- KUSUM**, Atal Jyoti Yojna (AJAY).
- **Biogas Programme:** setting up of Family Type biogas plants for cooking/ lighting/ manure/ small scale power generation
- **Solar Thermal Systems:** deployment of decentralized solar thermal systems/ devices (mainly solar cookers / driers for cooking, drying farm produce) under National Solar Mission.

3. **Other programmes:**

- Supporting research and development projects at premier institutions and industries on different aspects of new and renewable energy technologies.
 - Solar
 - Hydrogen and fuel cell
 - Biogas
 - SHP
- Human Resource Development and Training Programme
- Information and Publicity

Annexure-II

Annexure-II referred to in reply to part (b) of Lok Sabha Un-starred Question No. 848 for 21/11/2019 regarding 'Deployment of Renewable Energy'

Source-wise and State-wise installed capacity of Grid Interactive Renewable Power (As on 31.10.2019)

S. No.	STATES / Uts	Small Hydro Power	Wind Power	Bio Power	Solar Power	Total
						(MW)
1	Andhra Pradesh	162.11	4092.45	500.34	3316.82	8071.72
2	Arunachal Pradesh	131.105			5.61	136.72
3	Assam	34.11			41.23	75.34
4	Bihar	70.70		121.20	149.35	341.25
5	Chhatisgarh	76.00		230.50	231.35	537.85
6	Goa	0.05			4.78	4.83
7	Gujarat	62.35	7203.77	77.30	2687.57	10030.99
8	Haryana	73.50		205.66	247.52	526.68
9	Himachal Pradesh	906.51		7.20	29.63	943.34
10	Jammu & Kashmir	180.03			19.13	199.16
11	Jharkhand	4.05		4.30	38.40	46.75
12	Karnataka	1256.73	4753.40	1827.80	6497.42	14335.35
13	Kerala	222.02	62.50	0.72	141.39	426.63
14	Madhya Pradesh	95.91	2519.890	120.75	2116.08	4852.63
15	Maharashtra	379.575	4794.13	2528.69	1661.33	9363.73
16	Manipur	5.45			4.30	9.75
17	Meghalaya	32.53		13.80	0.12	46.45
18	Mizoram	36.47			1.42	37.89
19	Nagaland	30.67			1.00	31.67
20	Odisha	64.625		59.22	397.28	521.13
21	Punjab	173.55		327.85	947.10	1448.50
22	Rajasthan	23.85	4299.72	121.30	4737.63	9182.50
23	Sikkim	52.11			0.07	52.18
24	Tamil Nadu	123.05	9231.76	1003.95	3097.97	13456.73
25	Telangana	90.87	128.10	177.60	3620.75	4017.32
26	Tripura	16.01			9.41	25.42
27	Uttar Pradesh	25.10		2115.51	1045.10	3185.71
28	Uttarakhand	214.320		130.50	314.99	659.81
29	West Bengal	98.50		319.92	108.49	526.91
30	Andaman & Nicobar	5.25			12.19	17.44
31	Chandigarh				36.99	36.99
32	Dadar & Nagar Haveli				5.46	5.46
33	Daman & Diu				16.02	16.02
34	Delhi			52.00	148.41	200.41
35	Lakshwadeep				0.75	0.75
36	Pondicherry				3.20	3.20
37	Others		4.30			4.30
	Total (MW)	4647.107	37090.020	9946.11	31696.26	83379.50